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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,538	01/11/2001	Hans Heinle	1-22914	9389

7590 06/24/2003

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,538

Applicant(s)

HEINLE ET AL.

Examiner

Melody M. Burch

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/27/03 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6220416 to Katoh et al. in view of US Patent 3908604 to Vocklinghaus. Katoh et al. show in figure 1 a drive for cooling fans in motor vehicles, the drive comprising: a primary cooling circuit or path directed to element 19 including a primary cooler or unnumbered fins shown above and below element 19, a primary temperature sensor 19, at least two secondary cooling circuits or the two stacked heat exchangers of element 7 as disclosed in col. 4 lines 50-51 along with the air conditioner condenser 8, a fluid friction clutch including driving 15 and driven 21 clutch members and a reservoir 11 for a viscous fluid the reservoir being limited by a separating member 13 and being

connectable to a working chamber 12 by at least one first opening 14 shown in figure 3 in the separating member, the working chamber extending into a region between the clutch members in which torque is transmitted from the driving clutch member to the driven clutch member by the viscous fluid, and wherein filling of the working chamber with the viscous fluid is controlled by a first control element 26a shown in figure 3 opening and closing the first opening in the separating member depending on the temperature of cooling air or cooled atmospheric air passing through the primary cooler sensed by the primary temperature sensor as disclosed in col. 6 lines 45-47, characterized in that one of the at least two secondary cooling circuits, particularly element 8 includes at least one secondary temperature sensor 8a (although the sensor is described as a pressure sensor, Examiner notes that the pressure sensor also functions as a temperature sensor by virtue of the directly proportional relationship between pressure and temperature discussed in col. 8 lines 51-55) being operatively connected to a control unit 30 arranged to control a second control element 27,29,32 shown in figure 3 wherein the separating member comprises at least one second opening 23, the second control element being arranged in the working chamber, the control unit moving the second control element to open and close the at least one second opening in accordance with the property sensed by one or more of the secondary sensors to control the filling of the working chamber with the viscous fluid, and wherein control of the second control element is independent of control of the first control element.

Katoh et al. do not include the limitation of *each* of the at least two secondary cooling circuits (particularly the two stacked heat exchangers of element 7) including a secondary temperature sensor operatively connected to the control unit.

Vocklinghaus teaches in figure 1 the use of a heat exchanger 12a including a temperature sensor 14 operatively connected to a control unit 13.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the two stacked heat exchangers (or two of the at least two secondary cooling circuits) of Katoh et al. to have included temperature sensors operatively connected to the control unit, in view of the teachings of Vocklinghaus, in order to provide a means of providing signals to actuate a valve operator (the second control element 27,29,32, for example) to provide redundant fluid control means within the drive for improved device operating reliability.

Response to Arguments

4. Applicant's arguments filed 5/27/03 have been considered but are not persuasive. Applicant argues that the Katoh et al. reference fails to include both a primary cooling circuit and at least two secondary cooling circuits. Examiner maintains that, as broadly claimed, the path for air to flow towards element 19 shown in the region surrounding element 19 and the unnumbered fins shown above and below element 19 is a cooling circuit. Examiner also maintains that heat exchangers may also be broadly interpreted as cooling circuits.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 6/17/03
mmb
June 17, 2003


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600